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ABSTRACT

This experiment sought to determine if the extinction of anti Afro-American attitudes in Euro-American kindergarten children was possible. Also investigated was whether or not these conditioning procedures were equally effective regardless of the sex of Ss. A total of 37 Euro-American children were randomly selected from kindergarten classes and were randomly divided into four groups. The experimental groups were presented with pairings of the color black and neutral words. The color black has been found to be an emotionally charged stimulus and functionally related to attitudes toward Afro-Americans. The control group received no treatment. As hypothesized, extinction of anti Afro-American attitudes was found to occur following exposure to the conditioning procedures. Contrary to what was hypothesized, however, was the finding that females--but not males--demonstrated significantly more favorable attitudes toward Afro-Americans after having experienced the conditioning procedures. (Author)

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The Extinction of Racial Attitudes: Comparison of Sex Differences

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The Extinction of Racial Attitudes: Comparison of Sex Differences

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This experiment sought to determine if the extinction of anti Afro-American attitudes in Euro-American kindergarten children was possible. Also investigated was whether or not these conditioning procedures were equally effective regardless of the sex of Ss.

As hypothesized, extinction of anti Afro-American attitudes was found to occur following exposure to the conditioning procedures. Contrary to what was hypothesized, however, was the finding that females -- but not males -- demonstrated significantly more favorable attitudes toward Afro-Americans after having experienced the conditioning procedures.

Affect is one of the principle ingredients of attitudes. Furthermore, affective responses may be learned through classical conditioning (Kiesler, Collins, & Miller, 1969).

Affectivity has been transferred from emotion-evoking stimuli to originally neutral stimuli. In the experiments by Lohr and Staats (1972) and Staats and Staats (1957, 1958) positive or negative words were employed as emotion-evoking stimuli and were paired with various neutral words. Following such associations, the "neutral" words that had been paired with positively evaluated words were subsequently evaluated more positively while the "neutral" words that were paired with the negatively evaluated words were subsequently evaluated less favorably.

The direction of the transfer of affectivity has typically been from the emotion-evoking stimuli to the neutral stimuli. There has been little research done, however, where the stimulus placed in the role of the unconditioned stimulus was actually a neutral stimulus, while the stimulus used as the conditioned stimulus was actually ladened with affectivity. What might result from such associations could be a form of conditioned extinction. More specifically, there should be a diminution in the response strength toward the stimulus that originally possessed an affective charge after pairings with the neutral stimulus. This loss of affect is only possible, however, if the affective charge possessed by the emotion-evoking stimulus was a function of previous conditioning, and not a function of the inherent emotional value of the stimulus itself. Given that the emotional charge of the stimulus was learned, there occurs a kind of fatigue of the emotional response every time the stimulus is presented in association with some neutral stimulus (Wolpe, 1958). In other words, what is actually happening is an increasing accumulation of reactive inhibition and conditioned inhibition which serves to suppress the continued elicitation of a learned emotional response (Hull, 1943). Furthermore, in accordance with learning theory, the amount of inhibition and subsequent diminution of response strength should be a direct function of the number of extinction trials.

Although a great deal of research has been directed at demonstrating that conditioning affects attitudes, there has been little concern for investigating whether such conditioning is equally effective regardless of sex of S. From the few experiments that have been reported, some have shown that females are more susceptible to conditioning than males (e.g., Mohan & Claire, 1968), while others have shown the reverse is true. For instance, in the studies by Dernowa-Yarmolenko (1933) and Parish (1972) males were found to be more conditionable than females.

Since attitudes have been found to be learned through conditioning, it is possible to speculate that if males are more conditionable than females, then they should be more likely to become conditioned to the attitudes and prejudices of the community. In support of this notion Burnham, Connors, and Leonard (1969), Parish (1972) and Parish and Fleetwood (1974) reported that males were more likely than females to demonstrate racial prejudice (i.e., anti Afro-American attitudes).

In summary, if indeed males are more conditionable than females and attitudes are a result of conditioning, then it may be that the greater degree of anti Afro-American prejudice demonstrated by males is a function of their greater susceptibility to conditioning. If this contention is correct, then males in the control group of this experiment should demonstrate significantly more anti Afro-American attitudes than their female counterparts. As a result of the extinction procedure, however, the males in the experimental groups should demonstrate more favorable changes in their evaluations of Afro-Americans than their control counterparts. Changes in Ss' Afro-American attitudes should also be directly related to the number of conditioning sessions to which they are exposed.

The role of S awareness of the conditioning process will also be investigated in this experiment, although it is hypothesized that it will not significantly

affect the outcome of the conditioning treatment. This hypothesis is in accordance with the findings reported by Staats and his associates (Lohr & Staats, 1973; and Staats & Staats, 1958) that conditioning is not dependent upon S awareness.

Method

Subjects

A total of 37 Euro-American (i.e., Caucasian) children (19 males and 18 females) were randomly selected from the kindergarten classes of the Sand Springs School System, Sand Springs, Oklahoma. Ss were randomly divided into four groups. The experimental groups were presented with pairings of the color black and neutral words. The color black has been found to be an emotionally charged stimulus (Parish, in press) and functionally related to attitudes toward Afro-Americans (Williams, 1966, 1969; Williams & Carter, 1967; Williams & Roberson, 1967). The control group received no treatment.

Procedure

Treatment. The 3 experimental groups of Ss initially observed the projection of color slides onto a wall screen. The choice of color to be projected was randomly determined from the 4 alternatives: black, orange, blue, and green. Each color slide presentation lasted approximately 3 sec. One treatment session was completed when the experimental groups had experienced 36 presentations of each of the 4 colors. Only the color black was paired with the presentation of the neutral words. To facilitate Ss' attention, E encouraged Ss to say the color aloud as they observed its appearance on the wall screen. E instructed Ss that in addition to saying the observed color aloud, they should also repeat any word that E said and look at the color being presented on the screen at that moment. Ss were exposed to the treatment in groups of approximately 20 each. The neutral words which were paired with the black slide were presented verbally by E from a list developed by Parish (1972). There was approximately a .5 sec.

interval between the presentation of the black slide and the presentation of the neutral word. The interval between one slide cessation and the subsequent slide presentation was placed on a variable interval schedule which maintained an average of approximately 5 sec.

The number of conditioning sessions varied among the 3 experimental groups while the number of trials in each session remained a constant for all groups; i.e., 36 trials per session. Experimental groups E_1, E_2, and E_3 received 1, 4, and 8 sessions of the neutral word treatment, respectively. Ss in the control group did not experience any of these conditioning procedures.

Attitude measurement. Immediately following the final session of the conditioning procedures, Ss in all experimental groups and the control group were administered Williams' (1971) Preschool Racial Attitude Measure II (PRAM II). Degree of anti Afro-American attitudes was operationally defined on this scale as the number of times negative adjectives were attributed to the dark skinned "Afro-American" figures and the number of times positive adjectives were attributed to the light skinned "Euro-American" figures that appear in the PRAM II test kit. See Williams (1971) and Williams et al. (in press) for more information concerning this racial attitude scaling procedure.

Test for awareness. The awareness interview consisted of 3 questions:

What did you think about while we were playing this game?

What did you think we were trying to do?

What did you think we were trying to find out?

All Ss, regardless of group assignment, were asked these questions. These questions were only asked after each S had experienced the conditioning procedures (where applicable) and/or the racial attitude scaling procedures. These questions were intended to determine the extent to which awareness of the conditioning contingency and the E's motive influenced the conditioning of more favorable attitudes toward Afro-Americans. Three different judges determined

awareness by basing their subjective evaluations on each S's tape recorded responses to the above mentioned 3 questions. As in Cohen's (1964) study, S was deemed to be aware if any of the judges catagorized his comments accordingly.

Results

The principle analysis of the data was concerned with comparing treatments X sex in a 4 X 2 unweighted means analysis. This analysis detected significant differences between groups as a result of conditioning ($F = 7.694$, $df = 3/29$, $p < .01$). A Newman Keuls test indicated that the difference between the group of Ss that received 8 conditioning sessions ($\bar{X}_4 = 7.80$) and either of the means of the groups that received only 1 conditioning session ($\bar{X}_2 = 10.20$) or the control group ($\bar{X}_1 = 10.14$) was significant beyond the .01 probability level. As is depicted in Table 1, no other significant differences were demonstrated between the means of any of the groups of Ss.

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Insert Table 1 about here

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The main effect of sex was also found to be significant ($F = 8.849$, $df = 1/29$, $p < .01$). This meant that males demonstrated significantly more anti Afro-American attitudes than their female counterparts across treatment conditions.

Finally, the treatments X sex interaction effect also was found to be highly significant ($F = 14.823$, $df = 3/29$, $p < .001$). The Newman Keuls test indicated that the difference between males ($\bar{X}_4 = 10.13$) and females ($\bar{X}_4 = 6.71$) who received 8 conditioning sessions was significant beyond the .01 probability level. As can be noted in Table 2, however, no other differences between males and females were found regardless of whether they had received either 0, 1, or 4 conditioning sessions.

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Insert Table 2 about here

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While no significant differences were found between the means of the male Ss who received either 0, 1, 4, or 8 conditioning sessions, females did demonstrate a substantial lessening of anti Afro-American attitudes after 8 conditioning sessions. For the female Ss, a Newman Keuls test indicated that the differences between the mean of the group that received 8 conditioning sessions ($\bar{X}_4$ = 6.71) and the group that received only 1 conditioning session ($\bar{X}_2$ = 11.0) or the control group that received no conditioning sessions ($\bar{X}_1$ = 9.67) was significant beyond the .01 probability level. As shown in Table 2, no other differences between the 4 groups of female Ss were detected.

No statistical analysis was performed to compare the evaluations of Afro-Americans by Ss aware of the conditioning process with the evaluations of Afro-Americans by Ss who were considered to be unaware of the conditioning process. This comparison was not permitted because none of the Ss offered any responses to the questions asked that prompted the three judges to certify they were aware of the conditioning procedure or processes employed in this experiment.

Discussion

The findings of this experiment demonstrated that while extinction procedures were not found to be effective after either 1 or 4 conditioning sessions, those Ss who received 8 conditioning sessions did show a significant reduction of their anti Afro-American attitudes. Given these findings, it could be contended that it is not necessary to expose young children to a racial group in a positive manner in order to overcome prejudice toward that particular group of people. Rather, mere exposure to that racial group, either directly or indirectly, in the absence of positive or negative consequences, may diminish their attitudinal responses.

Regarding the differential susceptibilities of the sexes to conditioning, the findings of this experiment demonstrated that females -- but not males -- were found to adopt significantly more favorable attitudes toward Afro-Americans following exposure to 8 sessions of the conditioning procedures. This finding was not hypothesized although it appears to support the findings of Mohan and Claire (1968) that females are more conditionable than males. The question must be asked, however, why is it that the findings of the present experiment are essentially the opposite of the findings reported by Parish and Fleetwood (1974) which showed that males were more likely to demonstrate more favorable attitudes toward Afro-Americans following conditioning than their female counterparts? While no definite answer can be offered at this time, it could be that the markedly different results between the two experiments were a function of counterconditioning being used by Parish and Fleetwood (1974), while the present experiment employed a form of conditioned extinction. More specifically, in the Parish and Fleetwood (1974) experiment the color black was paired with positively evaluated words, while in the present experiment the color black was paired with neutral words. Perhaps a different response was elicited from the two sexes as a function of these two different conditioning procedures. The exact nature of these differential responses has as yet not been identified, but should be investigated in future research.

Although the findings of this experiment showed that males in the control group did demonstrate more anti Afro-American attitudes than their female counterparts, the difference between the two groups was not significant. This finding, combined with the finding mentioned earlier that females -- but not males -- demonstrated more favorable Afro-American attitudes following conditioning, lends little support to the notion that males are more conditionable than females either to community prejudices or to the conditioning procedures in this experiment.

Finally, this facilitation in the adoption of fewer anti Afro-American attitudes that was reported in this experiment was able to be accomplished without the necessity of awareness of the conditioning process by Ss being conditioned.

References

Burnham, K., Conners, J., & Leonard R. Racial prejudice in relation to education, sex and religion. Journal of the Scientific Study of Religion, 1969, 8, 318.

Cohen, B. Role of awareness in meaning established by classical conditioning. Journal of Experimental Psychology, 1964, 67, 373-378.

Dernowa-Yarmolenko, A. The fundamentals of a method of investigating the function of the nervous system as revealed in overt behavior. Journal of Genetic Psychology, 1933, 42, 319-338.

Hull, C. L. Principles of behavior. New York: Appleton-Century-Crofts, 1943.

Kiesler, C. A., Collins, B. E., & Miller, N. Attitude change. New York: McGraw-Hill, 1969.

Löhr, J. M., & Staats, A. W. Attitude conditioning in Sino-Tibetan languages. Journal of Personality and Social Psychology, 1973, 26(2), 196-200.

Mohan, J., & Claire, C. Personality and verbal conditioning. Manis: A Journal of Scientific Psychology, 1968, 15, 87-95.

Parish, T. S. Changing anti-Negro attitudes in Caucasian children through mediated stimulus generalization. Unpublished doctoral dissertation, Univer. of Illinois, 1972.

Parish, T. S. The conditioning of racial attitudes and color concepts in children. Perceptual and Motor Skills (in press).

Parish, T. S., & Fleetwood, R. S. Conditioning of racial attitudes in children; Comparison of sex differences. Submitted for consideration to Journal of Experimental Psychology, July 15, 1974.

Staats, A., & Staats, C. Attitudes established by classical conditioning. Journal of Abnormal and Social Psychology, 1958, 57, 37-40.

Staats, C., & Staats, A. Meaning established by classical conditioning. Journal of Experimental Psychology, 1957, 54, 74-80.

Williams, J. Connotations of racial concepts and color names. Journal of Personality and Social Psychology, 1966, 3, 531-540.

Williams, J. Individual differences in color name connotations as related to measures of racial attitude. Perceptual and Motor Skills, 1969, 29, 383-386.

Williams, J. Preschool Racial Attitude Measure II. Wake Forest Univer., Winston-Salem, North Carolina, 1971.

Williams, J., Best, D., Boswell, D., Mattson, L., & Graves, D. Preschool Racial Attitude Measure II. Educational and Psychological Measurement (in press).

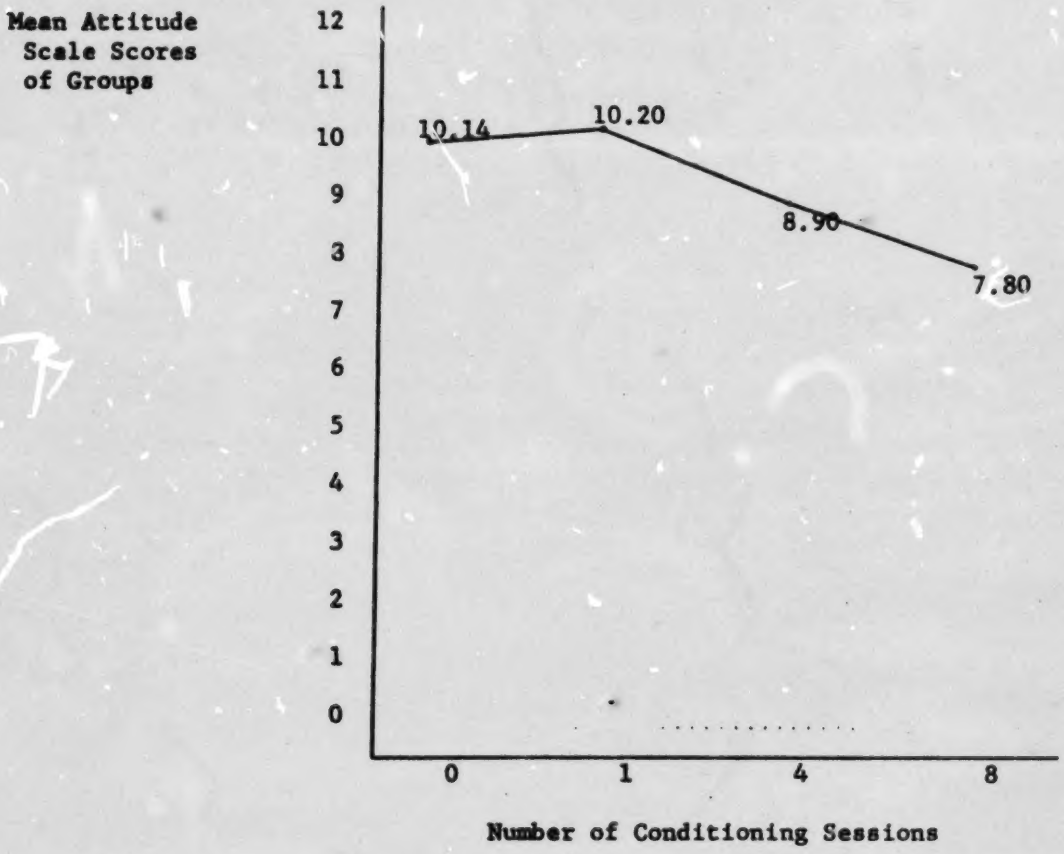
Williams, J., & Carter, J. Connotations of racial concepts and color names in Germany. Journal of Social Psychology, 1967, 72, 19-26.

Williams, J., & Roberson, J. A method for assessing racial attitudes in preschool children. Educational and Psychological Measurement, 1967, 27, 671-689.

Wolpe, J. Psychotherapy by reciprocal inhibition. Stanford: Stanford University Press, 1958.

TABLE I

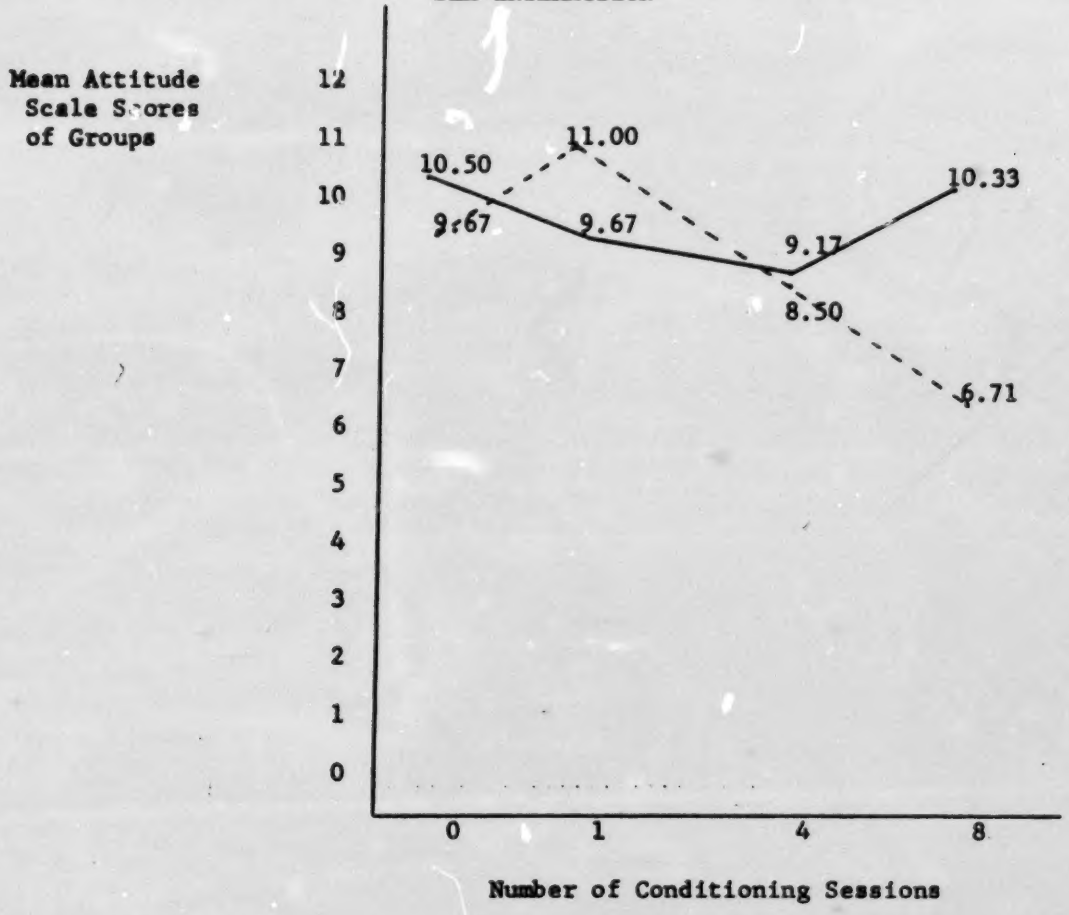
SUMMARY TABLE OF MEANS FOR THE TREATMENT CONDITIONS



Note: Mean refers to mean number of anti Afro-American responses.

TABLE II

SUMMARY TABLE OF MEANS FOR THE TREATMENTS BY SEX INTERACTION



Key:

——— indicates mean scores of groups of males

----- indicates mean scores of groups of females

Note: Mean refers to mean number of anti Afro-American responses.